

ABSTRACT

The projector 1 comprises a light source device 411, a color separating optical system 42, liquid crystal panels 441, 441R, 441G and 441B, a cross dichroic prism 444, and a projection lens 46, in which an optical filter 500 is disposed for reflecting a predetermined spectral component in the light flux between a dichroic mirror 421 and a dichroic mirror 422 where an angle by which the light flux expands falls within  $20^\circ$  with respect to an illumination optical axis L of the light flux on an optical path from the light source device 411 to a light flux-emitting surface of the projecting lens 46. Thus, carrying out spectrum correction can prevent the contrast degradation of the projected image. Furthermore, it allows the difference of an incident angle to the light flux-incident surface of the light flux to be smaller, thereby reducing color unevenness.

[Name of Document] DRAWINGS

[FIG. 6]

SPECTRUM PROPERTY OF LIGHT SOURCE LAMP 416 (SOLID LINE)

PROPERTY OF OPTICAL FILTER 500 (DOTTED LINE)

WAVELENGTH (nm)

INTENSITY ( $\text{W}/(\text{sr} \cdot \text{m}^2 \cdot \text{nm})$ )

TRANSMITTANCE RATIO (%)

[FIG. 7]

INCIDENT ANGLE (deg)

du'v' CHANGE AMOUNT

[FIG. 8]

INCIDENT ANGLE (deg)

COLOR TEMPERATURE T (K)

[FIG. 10]

SPECTRUM PROPERTY OF LIGHT SOURCE LAMP 416 (SOLID LINE)

PROPERTY OF OPTICAL FILTER 500A (DOTTED LINE)

WAVELENGTH (nm)

INTENSITY ( $\text{W}/(\text{sr} \cdot \text{m}^2 \cdot \text{nm})$ )

TRANSMITTANCE RATIO (%)

[FIG. 12]

SPECTRUM PROPERTY OF LIGHT SOURCE LAMP 416 (SOLID LINE)

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PROPERTY OF OPTICAL FILTER 500B (DOTTED LINE)

WAVELENGTH (nm)

INTENSITY ( $\text{W}/(\text{sr} \cdot \text{m}^2 \cdot \text{nm})$ )

TRANSMITTANCE RATIO (%)